

SEQUENCE LISTING

<110> Salbaum, Michael J.

<120> NOPE Polypeptides, Encoding Nucleic
Acids and Methods of Use

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<151> 2000-01-04

<150> US 60/205,789

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Glu	Val	Pro	Gly	Asn	Glu	Thr	Gln	Leu	Thr	Leu	Asn	Ser	Leu	Gln	Pro
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Asn	Lys	Val	Tyr	Arg	Val	Arg	Ile	Ser	Ala	Gly	Thr	Gly	Ala	Gly	Tyr
	595														

Ala	Asp	Gly	Asp	Arg	Pro	Pro	Gly	Arg	Gly	Asp	Gln	Ala	Trp	Asp	
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Val	Gly	Pro	Val	Arg	Leu	Lys	Lys	Val	Lys	Gln	Tyr	Glu	Leu	Thr	
		690				695				700					
Gln	Leu	Val	Pro	Gly	Arg	Pro	Tyr	Glu	Val	Lys	Leu	Val	Ala	Phe	Asn
705					710					715					720
Lys	His	Glu	Asp	Gly	Tyr	Ala	Ala	Val	Trp	Lys	Gly	Lys	Thr	Glu	Lys
				725					730					735	
Ala	Pro	Thr	Pro	Asp	Leu	Pro	Ile	Gln	Arg	Gly	Pro	Pro	Leu	Pro	Pro
			740					745					750		
Ala	His	Val	His	Ala	Glu	Ser	Asn	Ser	Ser	Thr	Ser	Ile	Trp	Leu	Arg
		755					760					765			
Trp	Lys	Lys	Pro	Asp	Phe	Thr	Thr	Val	Lys	Ile	Val	Asn	Tyr	Thr	Val
		770				775					780				
Arg	Phe	Gly	Pro	Trp	Gly	Leu	Arg	Asn	Ala	Ser	Leu	Val	Thr	Tyr	Tyr
785					790					795					800
Thr	Ser	Ser	Gly	Glu	Asp	Ile	Leu	Ile	Gly	Gly	Leu	Lys	Pro	Phe	Thr
				805					810					815	
Lys	Tyr	Glu	Phe	Ala	Val	Gln	Ser	His	Gly	Val	Asp	Met	Asp	Gly	Pro
			820					825					830		
Phe	Gly	Ser	Val	Val	Glu	Arg	Ser	Thr	Leu	Pro	Asp	Arg	Pro	Ser	Thr
		835					840					845			
Pro	Pro	Ser	Asp	Leu	Arg	Leu	Ser	Pro	Leu	Thr	Pro	Ser	Thr	Val	Arg
		850				855					860				
Leu	His	Trp	Cys	Pro	Pro	Thr	Glu	Pro	Asn	Gly	Glu	Ile	Val	Glu	Tyr
865					870					875					880
Leu	Ile	Leu	Tyr	Ser	Asn	Asn	His	Thr	Gln	Pro	Glu	His	Gln	Trp	Thr
				885					890					895	
Leu	Leu	Thr	Thr	Glu	Gly	Asn	Ile	Phe	Ser	Ala	Glu	Val	His	Gly	Leu
			900					905					910		
Glu	Ser	Asp	Thr	Arg	Tyr	Phe	Phe	Lys	Met	Gly	Ala	Arg	Thr	Glu	Val
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Gly	Pro	Gly	Pro	Phe	Ser	Arg	Leu	Gln	Asp	Val	Ile	Thr	Leu	Gln	Glu
		930				935					940				
Thr	Phe	Ser	Asp	Ser	Leu	Asp	Val	His	Ala	Val	Thr	Gly	Ile	Ile	Val
945					950					955					960
Gly	Val	Cys	Leu	Gly	Leu	Leu	Cys	Leu	Leu	Ala	Cys	Met	Cys	Ala	Gly
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Leu	Arg	Gln	Ser	Ser	His	Arg	Glu	Ala	Leu	Pro	Gly	Leu	Ser	Ser	Ser
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		995					1000						1005		
Pro	Ser	Val	Pro	Ala	Ala	His	Glu	Leu	Glu	Ser	Leu	Val	His	Pro	Arg
		1010				1015						1020			
Pro	Gln	Asp	Trp												

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 Pro Ser Pro Ala Cys Arg Asn Gln Val Glu Ala Glu Val Ile Val His
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 Ser Asp Phe Gly Ala Ser Lys Gly Cys Pro Asp Leu His Leu Gln Asp
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 1155 1160 1165
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 Pro Glu Ala Ala Ser Ala Ser Cys Ser Cys Ser Asp Leu Gln Pro Ser
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 Thr Ala Ile Glu Glu Ala Pro Gly Lys Ser Cys Gln Pro Lys Ala Leu
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 Ala Gln Val Pro
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 Glu Gly Pro Leu Gln Val Ile Leu Gly Pro Glu Gln Ala Val Val Leu
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 gac tgc act ttg ggg gct aca gct gct ggg cct ccg acc agg gtg aca 144
 Asp Cys Thr Leu Gly Ala Thr Ala Ala Gly Pro Pro Thr Arg Val Thr
 35 40 45
 tgg agc aag gat gga gac act gta cta gag cat gag aac ctg cac ctg 192
 Trp Ser Lys Asp Gly Asp Thr Val Leu Glu His Glu Asn Leu His Leu
 50 55 60
 cta ccc aat ggc tcc ctg tgg ctg tcc tca ccc cta gag caa gaa gac 240
 Leu Pro Asn Gly Ser Leu Trp Leu Ser Ser Pro Leu Glu Gln Glu Asp
 65 70 75 80

agc gat gat gag gaa gct ctt agg atc tgg aag gtc act gag ggc agc	288
Ser Asp Asp Glu Glu Ala Leu Arg Ile Trp Lys Val Thr Glu Gly Ser	
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tat tcc tgt ctg gcc cac agc ccg cta gga gtg gtg gcc agc cag gtt	336
Tyr Ser Cys Leu Ala His Ser Pro Leu Gly Val Val Ala Ser Gln Val	
100 105 110	
gct gtg gtc aag ctt gcc aca ctc gaa gac ttc tct ctg cac ccc gag	384
Ala Val Val Lys Leu Ala Thr Leu Glu Asp Phe Ser Leu His Pro Glu	
115 120 125	
tcc cag att gtg gag gag aac ggg aca gca cgc ttt gaa tgc cac acc	432
Ser Gln Ile Val Glu Glu Asn Gly Thr Ala Arg Phe Glu Cys His Thr	
130 135 140	
aag ggc ctt cca gcc ccc atc att act tgg gaa aag gac cag gtg acc	480
Lys Gly Leu Pro Ala Pro Ile Ile Thr Trp Glu Lys Asp Gln Val Thr	
145 150 155 160	
gtg cct gag gag ccc cgg ctc atc act ctt ccc aag tgg ctc ctc cag	528
Val Pro Glu Glu Pro Arg Leu Ile Thr Leu Pro Lys Trp Leu Leu Gln	
165 170 175	
atc cta gat gtc cag gac agt gat gca ggc tcc tac cgc tgc gtg gcc	576
Ile Leu Asp Val Gln Asp Ser Asp Ala Gly Ser Tyr Arg Cys Val Ala	
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acc aat tca gcc cgc caa cga ttc agc cag gag gcc tcg ctc act gtg	624
Thr Asn Ser Ala Arg Gln Arg Phe Ser Gln Glu Ala Ser Leu Thr Val	
195 200 205	
gcc ctc aga ggg tct ttg gag gct acc agg ggg cag gat gtg gtc att	672
Ala Leu Arg Gly Ser Leu Glu Ala Thr Arg Gly Gln Asp Val Val Ile	
210 215 220	
gtg gca gcc cca gag aac acc acg gta gtg tct gga cag aat gta gtg	720
Val Ala Ala Pro Glu Asn Thr Thr Val Val Ser Gly Gln Asn Val Val	
225 230 235 240	
atg gag tgc gtg gcc tct gct gac ccc acc cct ttt gtg tcc tgg gtc	768
Met Glu Cys Val Ala Ser Ala Asp Pro Thr Pro Phe Val Ser Trp Val	
245 250 255	
cga cag gat gga aag cct atc tcc acg gat gtc atc gtt ctg ggc cgg	816
Arg Gln Asp Gly Lys Pro Ile Ser Thr Asp Val Ile Val Leu Gly Arg	
260 265 270	
acc aat cta ctc atc gcc agc gcg cag cct cgg cac tct gga gtc tat	864
Thr Asn Leu Leu Ile Ala Ser Ala Gln Pro Arg His Ser Gly Val Tyr	
275 280 285	
gtc tgc cga gcc aac aag ccc ctc acg cgt gac ttc gcc act gcg gct	912

Val	Cys	Arg	Ala	Asn	Lys	Pro	Leu	Thr	Arg	Asp	Phe	Ala	Thr	Ala	Ala	
290						295					300					
gct gag ctc cga gtg ctt gct gcc cca gcc atc tcg cag gca ccc gag 960																
Ala	Glu	Leu	Arg	Val	Leu	Ala	Ala	Pro	Ala	Ile	Ser	Gln	Ala	Pro	Glu	
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gcg ctc tcg cgg acg cgg gcc agc acc gcg cgc ttc gtg tgc cgg gcg 1008																
Ala	Leu	Ser	Arg	Thr	Arg	Ala	Ser	Thr	Ala	Arg	Phe	Val	Cys	Arg	Ala	
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Ser	Gly	Glu	Pro	Arg	Pro	Ala	Leu	His	Trp	Leu	His	Asp	Gly	Ile	Pro	
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	370				375					380						
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ccg ctg agc agc tcc tct gtg ctg gtg gcc tgg gag cgg cct gag ttg 1296																
Pro	Leu	Ser	Ser	Ser	Val	Leu	Val	Ala	Trp	Glu	Arg	Pro	Glu	Leu		
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cac agc gag caa atc att ggc ttc tct ctt cac tac caa aag gca agg 1344																
His	Ser	Glu	Gln	Ile	Ile	Gly	Phe	Ser	Leu	His	Tyr	Gln	Lys	Ala	Arg	
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gga gtg gac aat gtg gag tac cag ttt gca gta aac aat gac acc aca 1392																
Gly	Val	Asp	Asn	Val	Glu	Tyr	Gln	Phe	Ala	Val	Asn	Asn	Asp	Thr	Thr	
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gag ctg cag gtt cgg gac ctg gaa ccc aac acg gat tat gag ttc tac 1440																
Glu	Leu	Gln	Val	Arg	Leu	Glu	Pro	Asn	Thr	Asp	Tyr	Glu	Phe	Tyr		
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Val	Val	Ala	Tyr	Ser	Gln	Leu	Gly	Ala	Ser	Arg	Thr	Ser	Ser	Pro	Ala	
			485			490						495				
ctg gtg cat aca ctg gac gat gtc ccc agc gca gca ccc cag ctt acc 1536																
Leu	Val	His	Thr	Leu	Asp	Asp	Val	Pro	Ser	Ala	Ala	Pro	Gln	Leu	Thr	

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Leu Ser Ser Pro Asn Pro Ser Asp Ile Arg Val Ala Trp Leu Pro Leu			
515	520	525	
ccc tcc agc ctg agc aat gga cag gtg ctg aag tac aag ata gag tac			1632
Pro Ser Ser Leu Ser Asn Gly Gln Val Leu Lys Tyr Lys Ile Glu Tyr			
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ggg ttg ggg aag gaa gat cag gtt ttc tcc acc gag gtg cct gga aat			1680
Gly Leu Gly Lys Glu Asp Gln Val Phe Ser Thr Glu Val Pro Gly Asn			
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gag aca caa ctt acg tta aac tca ctt cag cca aac aaa gtg tac cga			1728
Glu Thr Gln Leu Thr Leu Asn Ser Leu Gln Pro Asn Lys Val Tyr Arg			
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gtc cgg att tca gct ggc act ggc gct ggc tat gga gtc cct tct cag			1776
Val Arg Ile Ser Ala Gly Thr Gly Ala Gly Tyr Gly Val Pro Ser Gln			
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Trp Met Gln His Arg Thr Pro Gly Val His Asn Gln Ser His Val Pro			
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Phe Ala Pro Ala Glu Leu Lys Val Arg Ala Lys Met Glu Ser Leu Val			
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Val Ser Trp Gln Pro Pro Pro His Pro Thr Gln Ile Ser Gly Tyr Lys			
625	630	635	640
ctc tac tgg gga gag gtg gga aca gag gag gag gca gat ggt gac cgc			1968
Leu Tyr Trp Gly Glu Val Gly Thr Glu Glu Glu Ala Asp Gly Asp Arg			
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ccc cca ggg ggt cgt gga gat caa gct tgg gac gtc ggg ccc gtg cgg			2016
Pro Pro Gly Gly Arg Gly Asp Gln Ala Trp Asp Val Gly Pro Val Arg			
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Leu Lys Lys Lys Val Lys Gln Tyr Glu Leu Thr Gln Leu Val Pro Gly			
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Arg Pro Tyr Glu Val Lys Leu Val Ala Phe Asn Lys His Glu Asp Gly			
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tac gct gct gtg tgg aag ggc aag acg gag aag gcg ccc acg cca gac			2160
Tyr Ala Ala Val Trp Lys Gly Lys Thr Glu Lys Ala Pro Thr Pro Asp			
705	710	715	720

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Leu Pro Ile Gln Arg Gly Pro Pro Leu Pro Pro Ala His Val His Ala	
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Glu Ser Asn Ser Ser Thr Ser Ile Trp Leu Arg Trp Lys Lys Pro Asp	
740 745 750	
ttt acc act gtc aag att gtc aac tac act gta cgc ttc ggc ccc tgg	2304
Phe Thr Thr Val Lys Ile Val Asn Tyr Thr Val Arg Phe Gly Pro Trp	
755 760 765	
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Gly Leu Arg Asn Ala Ser Leu Val Thr Tyr Tyr Thr Ser Ser Gly Glu	
770 775 780	
gac att ctc att ggc ggc ctg aaa cca ttt acc aag tac gag ttt gcg	2400
Asp Ile Leu Ile Gly Gly Leu Lys Pro Phe Thr Lys Tyr Glu Phe Ala	
785 790 795 800	
gta cag tcc cac gga gtg gat atg gat ggg ccc ttt ggc tcc gtc gta	2448
Val Gln Ser His Gly Val Asp Met Asp Gly Pro Phe Gly Ser Val Val	
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gaa cgc tcc acc ctg cct gac cgg cct tca aca cct cct tct gac ctg	2496
Glu Arg Ser Thr Leu Pro Asp Arg Pro Ser Thr Pro Pro Ser Asp Leu	
820 825 830	
cgc ctg agc ccc ctg aca cca tcc acc gtt cgg tta cac tgg tgt ccc	2544
Arg Leu Ser Pro Leu Thr Pro Ser Thr Val Arg Leu His Trp Cys Pro	
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Pro Thr Glu Pro Asn Gly Glu Ile Val Glu Tyr Leu Ile Leu Tyr Ser	
850 855 860	
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Asn Asn His Thr Gln Pro Glu His Gln Trp Thr Leu Leu Thr Thr Glu	
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gga aac atc ttc agt gca gag gtc cat ggc cta gag agt gac act cgg	2688
Gly Asn Ile Phe Ser Ala Glu Val His Gly Leu Glu Ser Asp Thr Arg	
885 890 895	
tat ttc ttc aag atg gga gcc cgc aca gag gtg ggg cct ggg ccc ttt	2736
Tyr Phe Phe Lys Met Gly Ala Arg Thr Glu Val Gly Pro Gly Pro Phe	
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tcc cgc ttg cag gat gtg att act ctg caa gag aca ttc tca gac tcc	2784
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2796

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Trp Ser Lys Asp Gly Asp Thr Val Leu Glu His Glu Asn Leu His Leu
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Leu Pro Asn Gly Ser Leu Trp Leu Ser Ser Pro Leu Glu Gln Glu Asp
65 70 75 80
Ser Asp Asp Glu Glu Ala Leu Arg Ile Trp Lys Val Thr Glu Gly Ser
85 90 95
Tyr Ser Cys Leu Ala His Ser Pro Leu Gly Val Val Ala Ser Gln Val
100 105 110
Ala Val Val Lys Leu Ala Thr Leu Glu Asp Phe Ser Leu His Pro Glu
115 120 125
Ser Gln Ile Val Glu Glu Asn Gly Thr Ala Arg Phe Glu Cys His Thr
130 135 140
Lys Gly Leu Pro Ala Pro Ile Ile Thr Trp Glu Lys Asp Gln Val Thr
145 150 155 160
Val Pro Glu Glu Pro Arg Leu Ile Thr Leu Pro Lys Trp Leu Leu Gln
165 170 175
Ile Leu Asp Val Gln Asp Ser Asp Ala Gly Ser Tyr Arg Cys Val Ala
180 185 190
Thr Asn Ser Ala Arg Gln Arg Phe Ser Gln Glu Ala Ser Leu Thr Val
195 200 205
Ala Leu Arg Gly Ser Leu Glu Ala Thr Arg Gly Gln Asp Val Val Ile
210 215 220
Val Ala Ala Pro Glu Asn Thr Thr Val Val Ser Gly Gln Asn Val Val
225 230 235 240
Met Glu Cys Val Ala Ser Ala Asp Pro Thr Pro Phe Val Ser Trp Val
245 250 255
Arg Gln Asp Gly Lys Pro Ile Ser Thr Asp Val Ile Val Leu Gly Arg
260 265 270
Thr Asn Leu Leu Ile Ala Ser Ala Gln Pro Arg His Ser Gly Val Tyr
275 280 285
Val Cys Arg Ala Asn Lys Pro Leu Thr Arg Asp Phe Ala Thr Ala Ala
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Ala Glu Leu Arg Val Leu Ala Ala Pro Ala Ile Ser Gln Ala Pro Glu
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Ala Leu Ser Arg Thr Arg Ala Ser Thr Ala Arg Phe Val Cys Arg Ala
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Ser Gly Glu Pro Arg Pro Ala Leu His Trp Leu His Asp Gly Ile Pro
340 345 350
Leu Arg Pro Asn Gly Arg Val Lys Val Gln Gly Gly Gly Gly Ser Leu
355 360 365
Val Ile Thr Gln Ile Gly Leu Gln Asp Ala Gly Tyr Tyr Gln Cys Val
370 375 380
Ala Glu Asn Ser Ala Gly Thr Ala Cys Ala Ala Ala Pro Leu Ala Val
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405 410 415
Pro Leu Ser Ser Ser Val Leu Val Ala Trp Glu Arg Pro Glu Leu
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His Ser Glu Gln Ile Ile Gly Phe Ser Leu His Tyr Gln Lys Ala Arg
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450 455 460
Glu Leu Gln Val Arg Asp Leu Glu Pro Asn Thr Asp Tyr Glu Phe Tyr
465 470 475 480
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485 490 495
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500 505 510
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515 520 525
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545 550 555 560
Glu Thr Gln Leu Thr Leu Asn Ser Leu Gln Pro Asn Lys Val Tyr Arg
565 570 575
Val Arg Ile Ser Ala Gly Thr Gly Ala Gly Tyr Gly Val Pro Ser Gln
580 585 590
Trp Met Gln His Arg Thr Pro Gly Val His Asn Gln Ser His Val Pro
595 600 605
Phe Ala Pro Ala Glu Leu Lys Val Arg Ala Lys Met Glu Ser Leu Val
610 615 620
Val Ser Trp Gln Pro Pro Pro His Pro Thr Gln Ile Ser Gly Tyr Lys
625 630 635 640
Leu Tyr Trp Gly Glu Val Gly Thr Glu Glu Ala Asp Gly Asp Arg
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Pro Pro Gly Gly Arg Gly Asp Gln Ala Trp Asp Val Gly Pro Val Arg
660 665 670
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675 680 685
Arg Pro Tyr Glu Val Lys Leu Val Ala Phe Asn Lys His Glu Asp Gly
690 695 700
Tyr Ala Ala Val Trp Lys Gly Lys Thr Glu Lys Ala Pro Thr Pro Asp
705 710 715 720
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725 730 735
Glu Ser Asn Ser Ser Thr Ser Ile Trp Leu Arg Trp Lys Lys Pro Asp
740 745 750
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755 760 765
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 770 775 780
 Asp Ile Leu Ile Gly Gly Leu Lys Pro Phe Thr Lys Tyr Glu Phe Ala
 785 790 795 800
 Val Gln Ser His Gly Val Asp Met Asp Gly Pro Phe Gly Ser Val Val
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 Glu Arg Ser Thr Leu Pro Asp Arg Pro Ser Thr Pro Pro Ser Asp Leu
 820 825 830
 Arg Leu Ser Pro Leu Thr Pro Ser Thr Val Arg Leu His Trp Cys Pro
 835 840 845
 Pro Thr Glu Pro Asn Gly Glu Ile Val Glu Tyr Leu Ile Leu Tyr Ser
 850 855 860
 Asn Asn His Thr Gln Pro Glu His Gln Trp Thr Leu Leu Thr Thr Glu
 865 870 875 880
 Gly Asn Ile Phe Ser Ala Glu Val His Gly Leu Glu Ser Asp Thr Arg
 885 890 895
 Tyr Phe Phe Lys Met Gly Ala Arg Thr Glu Val Gly Pro Gly Pro Phe
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 Thr Pro Gly Asn Pro Ala Leu Tyr Thr Arg Ala Arg Leu Gly Pro Pro
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 Ser Val Pro Ala Ala His Glu Leu Glu Ser Leu Val His Pro Arg Pro
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 Gln Asp Trp Ser Pro Pro Pro Ser Asp Val Glu Asp Lys Ala Glu Val
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 cac agc ctt atg ggt ggc agt gtt tca gat tgc cgg ggc cac tcc aag 240
 His Ser Leu Met Gly Gly Ser Val Ser Asp Cys Arg Gly His Ser Lys

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Arg Lys Ile Ser Trp Ala Gln Ala Gly Gly Pro Asn Trp Ala Gly Ser	85	90	95	
tgg gca ggc tgt gag ctg ccc cag ggt agt ggt cca agg ccg gct ctg				336
Trp Ala Gly Cys Glu Leu Pro Gln Gly Ser Gly Pro Arg Pro Ala Leu	100	105	110	
acc cgt gct ctg ctg cct cca gcg gga acc ggg cag aca ctg ctg ctg				384
Thr Arg Ala Leu Leu Pro Pro Ala Gly Thr Gly Gln Thr Leu Leu Leu	115	120	125	
caa gcc ctg gtg tat gac ggc ata aag agc aac ggg aga aag aag ccg				432
Gln Ala Leu Val Tyr Asp Gly Ile Lys Ser Asn Gly Arg Lys Lys Pro	130	135	140	
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Ser Pro Ala Cys Arg Asn Gln Val Glu Ala Glu Val Ile Val His Ser	145	150	155	160
gac ttc ggt gca tcc aaa gga tgt cct gac ctc cac ctc caa gac ctg				528
Asp Phe Gly Ala Ser Lys Gly Cys Pro Asp Leu His Leu Gln Asp Leu	165	170	175	
gag cca gag gaa cca ctg act gca gag act ctg cct tcc acg tct gga				576
Glu Pro Glu Glu Pro Leu Thr Ala Glu Thr Leu Pro Ser Thr Ser Gly	180	185	190	
gct gtg gat ctg tct caa gga gca gac tgg ctg ggc agg gag ctg gga				624
Ala Val Asp Leu Ser Gln Gly Ala Asp Trp Leu Gly Arg Glu Leu Gly	195	200	205	
ggg tgc caa cca aca acc agt ggg cca gag agg ctc acc tgc ttg cca				672
Gly Cys Gln Pro Thr Thr Ser Gly Pro Glu Arg Leu Thr Cys Leu Pro	210	215	220	
gaa gca gcc agt gcc tcc tgc tcc tgc tca gac ctc cag ccc agc act				720
Glu Ala Ala Ser Ala Ser Cys Ser Cys Ser Asp Leu Gln Pro Ser Thr	225	230	235	240
gct ata gag gag gcc cct ggg aaa agc tgc cag ccc aaa gcc ctg tgt				768
Ala Ile Glu Glu Ala Pro Gly Lys Ser Cys Gln Pro Lys Ala Leu Cys	245	250	255	
cct cta aca gtc agc cca agc ctt ccc agg gcc cct gtc tcc tct gct				816
Pro Leu Thr Val Ser Pro Ser Leu Pro Arg Ala Pro Val Ser Ser Ala	260	265	270	
cag gtc ccc				825
Gln Val Pro				
275				

This document contains information that is exempt from release under the provisions of the Freedom of Information Act, 5 U.S.C. 552, because it is:

<210> 6
 <211> 275
 <212> PRT
 <213> Mus musculus

<400> 6
 Arg Gln Ser Ser His Arg Glu Ala Leu Pro Gly Leu Ser Ser Ser Gly
 1 5 10 15
 Thr Pro Gly Asn Pro Ala Leu Tyr Thr Arg Ala Arg Leu Gly Pro Pro
 20 25 30
 Ser Val Pro Ala Ala His Glu Leu Glu Ser Leu Val His Pro Arg Pro
 35 40 45
 Gln Asp Trp Ser Pro Pro Pro Ser Asp Val Glu Asp Lys Ala Glu Val
 50 55 60
 His Ser Leu Met Gly Gly Ser Val Ser Asp Cys Arg Gly His Ser Lys
 65 70 75 80
 Arg Lys Ile Ser Trp Ala Gln Ala Gly Gly Pro Asn Trp Ala Gly Ser
 85 90 95
 Trp Ala Gly Cys Glu Leu Pro Gln Gly Ser Gly Pro Arg Pro Ala Leu
 100 105 110
 Thr Arg Ala Leu Leu Pro Pro Ala Gly Thr Gly Gln Thr Leu Leu Leu
 115 120 125
 Gln Ala Leu Val Tyr Asp Gly Ile Lys Ser Asn Gly Arg Lys Lys Pro
 130 135 140
 Ser Pro Ala Cys Arg Asn Gln Val Glu Ala Glu Val Ile Val His Ser
 145 150 155 160
 Asp Phe Gly Ala Ser Lys Gly Cys Pro Asp Leu His Leu Gln Asp Leu
 165 170 175
 Glu Pro Glu Glu Pro Leu Thr Ala Glu Thr Leu Pro Ser Thr Ser Gly
 180 185 190
 Ala Val Asp Leu Ser Gln Gly Ala Asp Trp Leu Gly Arg Glu Leu Gly
 195 200 205
 Gly Cys Gln Pro Thr Thr Ser Gly Pro Glu Arg Leu Thr Cys Leu Pro
 210 215 220
 Glu Ala Ala Ser Ala Ser Cys Ser Cys Ser Asp Leu Gln Pro Ser Thr
 225 230 235 240
 Ala Ile Glu Glu Ala Pro Gly Lys Ser Cys Gln Pro Lys Ala Leu Cys
 245 250 255
 Pro Leu Thr Val Ser Pro Ser Leu Pro Arg Ala Pro Val Ser Ser Ala
 260 265 270
 Gln Val Pro
 275

<210> 7
 <211> 243
 <212> DNA
 <213> Mus musculus

<220>
 <221> CDS

<222> (1)...(243)

<400> 7

cct	gag	cag	gct	gtg	gtg	ctg	gac	tgc	act	ttg	ggg	gct	aca	gct	gct	48
Pro	Glu	Gln	Ala	Val	Val	Leu	Asp	Cys	Thr	Leu	Gly	Ala	Thr	Ala	Ala	
1				5					10					15		

ggg	cct	ccg	acc	agg	gtg	aca	tgg	agc	aag	gat	gga	gac	act	gta	cta	96
Gly	Pro	Pro	Thr	Arg	Val	Thr	Trp	Ser	Lys	Asp	Gly	Asp	Thr	Val	Leu	
			20					25					30			

gag	cat	gag	aac	ctg	cac	ctg	cta	ccc	aat	ggc	tcc	ctg	tgg	ctg	tcc	144
Glu	His	Glu	Asn	Leu	His	Leu	Leu	Pro	Asn	Gly	Ser	Leu	Trp	Leu	Ser	
			35				40						45			

tca	ccc	cta	gag	caa	gaa	gac	agc	gat	gat	gag	gaa	gct	ctt	agg	atc	192
Ser	Pro	Leu	Glu	Gln	Glu	Asp	Ser	Asp	Asp	Glu	Glu	Ala	Leu	Arg	Ile	
		50				55						60				

tgg	aag	gtc	act	gag	ggc	agc	tat	tcc	tgt	ctg	gcc	cac	agc	ccg	cta	240
Trp	Lys	Val	Thr	Glu	Gly	Ser	Tyr	Ser	Cys	Leu	Ala	His	Ser	Pro	Leu	
65					70					75					80	

gga																243
Gly																

<210> 8

<211> 81

<212> PRT

<213> Mus musculus

<400> 8

Pro	Glu	Gln	Ala	Val	Val	Leu	Asp	Cys	Thr	Leu	Gly	Ala	Thr	Ala	Ala	
1					5				10					15		
Gly	Pro	Pro	Thr	Arg	Val	Thr	Trp	Ser	Lys	Asp	Gly	Asp	Thr	Val	Leu	
			20					25					30			
Glu	His	Glu	Asn	Leu	His	Leu	Leu	Pro	Asn	Gly	Ser	Leu	Trp	Leu	Ser	
			35				40					45				
Ser	Pro	Leu	Glu	Gln	Glu	Asp	Ser	Asp	Asp	Glu	Glu	Ala	Leu	Arg	Ile	
		50				55					60					
Trp	Lys	Val	Thr	Glu	Gly	Ser	Tyr	Ser	Cys	Leu	Ala	His	Ser	Pro	Leu	
65					70					75					80	
Gly																

<210> 9

<211> 192

<212> DNA

<213> Mus musculus

<220>
<221> CDS
<222> (1)...(192)

<400> 9
gag aac ggg aca gca cgc ttt gaa tgc cac acc aag ggc ctt cca gcc 48
Glu Asn Gly Thr Ala Arg Phe Glu Cys His Thr Lys Gly Leu Pro Ala
1 5 10 15
ccc atc att act tgg gaa aag gac cag gtg acc gtg cct gag gag ccc 96
Pro Ile Ile Thr Trp Glu Lys Asp Gln Val Thr Val Pro Glu Glu Pro
20 25 30
cgg ctc atc act ctt ccc aag tgg ctc ctc cag atc cta gat gtc cag 144
Arg Leu Ile Thr Leu Pro Lys Trp Leu Leu Gln Ile Leu Asp Val Gln
35 40 45
gac agt gat gca ggc tcc tac cgc tgc gtg gcc acc aat tca gcc cgc 192
Asp Ser Asp Ala Gly Ser Tyr Arg Cys Val Ala Thr Asn Ser Ala Arg
50 55 60

<210> 10
<211> 64
<212> PRT
<213> Mus musculus

<400> 10
Glu Asn Gly Thr Ala Arg Phe Glu Cys His Thr Lys Gly Leu Pro Ala
1 5 10 15
Pro Ile Ile Thr Trp Glu Lys Asp Gln Val Thr Val Pro Glu Glu Pro
20 25 30
Arg Leu Ile Thr Leu Pro Lys Trp Leu Leu Gln Ile Leu Asp Val Gln
35 40 45
Asp Ser Asp Ala Gly Ser Tyr Arg Cys Val Ala Thr Asn Ser Ala Arg
50 55 60

<210> 11
<211> 189
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(189)

<400> 11
tct gga cag aat gta gtg atg gag tgc gtg gcc tct gct gac ccc acc 48
Ser Gly Gln Asn Val Val Met Glu Cys Val Ala Ser Ala Asp Pro Thr
1 5 10 15

cct ttt gtg tcc tgg gtc cga cag gat gga aag cct atc tcc acg gat 96
Pro Phe Val Ser Trp Val Arg Gln Asp Gly Lys Pro Ile Ser Thr Asp
20 25 30

gtc atc gtt ctg ggc cgg acc aat cta ctc atc gcc agc gcg cag cct 144
Val Ile Val Leu Gly Arg Thr Asn Leu Leu Ile Ala Ser Ala Gln Pro
35 40 45

cgg cac tct gga gtc tat gtc tgc cga gcc aac aag ccc ctc acg 189
Arg His Ser Gly Val Tyr Val Cys Arg Ala Asn Lys Pro Leu Thr
50 55 60

<210> 12

<211> 63

<212> PRT

<213> Mus musculus

<400> 12

Ser Gly Gln Asn Val Val Met Glu Cys Val Ala Ser Ala Asp Pro Thr
1 5 10 15
Pro Phe Val Ser Trp Val Arg Gln Asp Gly Lys Pro Ile Ser Thr Asp
20 25 30
Val Ile Val Leu Gly Arg Thr Asn Leu Leu Ile Ala Ser Ala Gln Pro
35 40 45
Arg His Ser Gly Val Tyr Val Cys Arg Ala Asn Lys Pro Leu Thr
50 55 60

<210> 13

<211> 195

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)...(195)

<400> 13

cgg gcc agc acc gcg cgc ttc gtg tgc cgg gcg tcc ggg gag cca cgg 48
Arg Ala Ser Thr Ala Arg Phe Val Cys Arg Ala Ser Gly Glu Pro Arg
1 5 10 15

ccc gcg ctg cac tgg ctg cac gac ggg atc ccg ttg cga ccc aat ggg 96
Pro Ala Leu His Trp Leu His Asp Gly Ile Pro Leu Arg Pro Asn Gly
20 25 30

cgc gtc aag gtg cag ggc ggt ggc ggc agc ttg gtc atc act cag atc 144
Arg Val Lys Val Gln Gly Gly Gly Gly Ser Leu Val Ile Thr Gln Ile
35 40 45

ggc ctg cag gac gct ggc tac tac cag tgc gta gca gaa aac agc gcg 192

Gly Leu Gln Asp Ala Gly Tyr Tyr Gln Cys Val Ala Glu Asn Ser Ala
50 55 60

gga
Gly
65

195

<210> 14
<211> 65
<212> PRT
<213> Mus musculus

<400> 14
Arg Ala Ser Thr Ala Arg Phe Val Cys Arg Ala Ser Gly Glu Pro Arg
1 5 10 15
Pro Ala Leu His Trp Leu His Asp Gly Ile Pro Leu Arg Pro Asn Gly
20 25 30
Arg Val Lys Val Gln Gly Gly Gly Ser Leu Val Ile Thr Gln Ile
35 40 45
Gly Leu Gln Asp Ala Gly Tyr Gln Cys Val Ala Glu Asn Ser Ala
50 55 60
Gly
65

<210> 15
<211> 249
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(249)

<400> 15
agc gcc ccg act cgg gtc aca gcc acg ccg ctg agc agc tcc tct gtg 48
Ser Ala Pro Thr Arg Val Thr Ala Thr Pro Leu Ser Ser Ser Ser Val
1 5 10 15
ctg gtg gcc tgg gag cgg cct gag ttg cac agc gag caa atc att ggc 96
Leu Val Ala Trp Glu Arg Pro Glu Leu His Ser Glu Gln Ile Ile Gly
20 25 30
ttc tct ctt cac tac caa aag gca agg gga gtg gac aat gtg gag tac 144
Phe Ser Leu His Tyr Gln Lys Ala Arg Gly Val Asp Asn Val Glu Tyr
35 40 45
cag ttt gca gta aac aat gac acc aca gag ctg cag gtt cgg gac ctg 192
Gln Phe Ala Val Asn Asn Asp Thr Thr Glu Leu Gln Val Arg Asp Leu
50 55 60
gaa ccc aac acg gat tat gag ttc tac gtg gtg gcc tac tcc cag ctg 240

Glu Pro Asn Thr Asp Tyr Glu Phe Tyr Val Val Ala Tyr Ser Gln Leu
65 70 75 80

ggg gcc agc
Gly Ala Ser

249

<210> 16
<211> 83
<212> PRT
<213> Mus musculus

<400> 16
Ser Ala Pro Thr Arg Val Thr Ala Thr Pro Leu Ser Ser Ser Ser Val
1 5 10 15
Leu Val Ala Trp Glu Arg Pro Glu Leu His Ser Glu Gln Ile Ile Gly
20 25 30
Phe Ser Leu His Tyr Gln Lys Ala Arg Gly Val Asp Asn Val Glu Tyr
35 40 45
Gln Phe Ala Val Asn Asn Asp Thr Thr Glu Leu Gln Val Arg Asp Leu
50 55 60
Glu Pro Asn Thr Asp Tyr Glu Phe Tyr Val Val Ala Tyr Ser Gln Leu
65 70 75 80
Gly Ala Ser

<210> 17
<211> 249
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(249)

<400> 17
agc gca gca ccc cag ctt acc ttg tcc agc ccc aac ccc tcg gac atc 48
Ser Ala Ala Pro Gln Leu Thr Leu Ser Ser Pro Asn Pro Ser Asp Ile
1 5 10 15
agg gtg gca tgg ctg ccc ctg ccc tcc agc ctg agc aat gga cag gtg 96
Arg Val Ala Trp Leu Pro Leu Pro Ser Ser Leu Ser Asn Gly Gln Val
20 25 30
ctg aag tac aag ata gag tac ggt ttg ggg aag gaa gat cag gtt ttc 144
Leu Lys Tyr Lys Ile Glu Tyr Gly Leu Gly Lys Glu Asp Gln Val Phe
35 40 45
tcc acc gag gtg cct gga aat gag aca caa ctt acg tta aac tca ctt 192
Ser Thr Glu Val Pro Gly Asn Glu Thr Gln Leu Thr Leu Asn Ser Leu
50 55 60

cag cca aac aaa gtg tac cga gtc cgg att tca gct ggc act ggc gct 240
Gln Pro Asn Lys Val Tyr Arg Val Arg Ile Ser Ala Gly Thr Gly Ala
65 70 75 80

ggc tat gga 249
Gly Tyr Gly

<210> 18
<211> 83
<212> PRT
<213> Mus musculus

<400> 18
Ser Ala Ala Pro Gln Leu Thr Leu Ser Ser Pro Asn Pro Ser Asp Ile
1 5 10 15
Arg Val Ala Trp Leu Pro Leu Pro Ser Ser Leu Ser Asn Gly Gln Val
20 25 30
Leu Lys Tyr Lys Ile Glu Tyr Gly Leu Gly Lys Glu Asp Gln Val Phe
35 40 45
Ser Thr Glu Val Pro Gly Asn Glu Thr Gln Leu Thr Leu Asn Ser Leu
50 55 60
Gln Pro Asn Lys Val Tyr Arg Val Arg Ile Ser Ala Gly Thr Gly Ala
65 70 75 80
Gly Tyr Gly

<210> 19
<211> 288
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(288)

<400> 19
ttt gcc cct gca gaa ttg aag gtg agg gca aag atg gag tcc ctg gtg 48
Phe Ala Pro Ala Glu Leu Lys Val Arg Ala Lys Met Glu Ser Leu Val
1 5 10 15

gtg tca tgg cag ccg ccc cct cac ccc acc cag atc tct gga tac aaa 96
Val Ser Trp Gln Pro Pro Pro His Pro Thr Gln Ile Ser Gly Tyr Lys
20 25 30

ctc tac tgg gga gag gtg gga aca gag gag gag gca gat ggt gac cgc 144
Leu Tyr Trp Gly Glu Val Gly Thr Glu Glu Glu Ala Asp Gly Asp Arg
35 40 45

ccc cca ggg ggt cgt gga gat caa gct tgg gac gtc ggg ccc gtg cgg 192

Pro Pro Gly Gly Arg Gly Asp Gln Ala Trp Asp Val Gly Pro Val Arg
50 55 60

ctg aag aag aaa gtg aag cag tat gaa ctg acc cag tta gtc cct ggc 240
Leu Lys Lys Lys Val Lys Gln Tyr Glu Leu Thr Gln Leu Val Pro Gly
65 70 75 80

agg ccg tac gag gtg aag ctc gta gct ttc aac aaa cac gag gac ggc 288
Arg Pro Tyr Glu Val Lys Leu Val Ala Phe Asn Lys His Glu Asp Gly
85 90 95

<210> 20
<211> 96
<212> PRT
<213> Mus musculus

<400> 20
Phe Ala Pro Ala Glu Leu Lys Val Arg Ala Lys Met Glu Ser Leu Val
1 5 10 15
Val Ser Trp Gln Pro Pro Pro His Pro Thr Gln Ile Ser Gly Tyr Lys
20 25 30
Leu Tyr Trp Gly Glu Val Gly Thr Glu Glu Glu Ala Asp Gly Asp Arg
35 40 45
Pro Pro Gly Gly Arg Gly Asp Gln Ala Trp Asp Val Gly Pro Val Arg
50 55 60
Leu Lys Lys Lys Val Lys Gln Tyr Glu Leu Thr Gln Leu Val Pro Gly
65 70 75 80
Arg Pro Tyr Glu Val Lys Leu Val Ala Phe Asn Lys His Glu Asp Gly
85 90 95

<210> 21
<211> 246
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1) ... (246)

<400> 21
ctg cct cct gcc cat gtc cac gca gag tca aac agc tcc act tcc att 48
Leu Pro Pro Ala His Val His Ala Glu Ser Asn Ser Ser Thr Ser Ile
1 5 10 15
tgg ctt cgg tgg aag aag cca gac ttt acc act gtc aag att gtc aac 96
Trp Leu Arg Trp Lys Lys Pro Asp Phe Thr Thr Val Lys Ile Val Asn
20 25 30
tac act gta cgc ttc ggc ccc tgg ggg ctc agg aat gct tcc ctg gtc 144
Tyr Thr Val Arg Phe Gly Pro Trp Gly Leu Arg Asn Ala Ser Leu Val

35

40

45

acc tac tat acc agc tct gga gaa gac att ctc att ggc ggc ctg aaa 192
Thr Tyr Tyr Thr Ser Ser Gly Glu Asp Ile Leu Ile Gly Gly Leu Lys
50 55 60

cca ttt acc aag tac gag ttt gcg gta cag tcc cac gga gtg gat atg 240
Pro Phe Thr Lys Tyr Glu Phe Ala Val Gln Ser His Gly Val Asp Met
65 70 75 80

gat ggg 246
Asp Gly

<210> 22

<211> 82

<212> PRT

<213> Mus musculus

<400> 22

Leu Pro Pro Ala His Val His Ala Glu Ser Asn Ser Ser Thr Ser Ile
1 5 10 15
Trp Leu Arg Trp Lys Lys Pro Asp Phe Thr Thr Val Lys Ile Val Asn
20 25 30
Tyr Thr Val Arg Phe Gly Pro Trp Gly Leu Arg Asn Ala Ser Leu Val
35 40 45
Thr Tyr Tyr Thr Ser Ser Gly Glu Asp Ile Leu Ile Gly Gly Leu Lys
50 55 60
Pro Phe Thr Lys Tyr Glu Phe Ala Val Gln Ser His Gly Val Asp Met
65 70 75 80
Asp Gly

<210> 23

<211> 252

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)...(252)

<400> 23

aca cct cct tct gac ctg cgc ctg agc ccc ctg aca cca tcc acc gtt 48
Thr Pro Pro Ser Asp Leu Arg Leu Ser Pro Leu Thr Pro Ser Thr Val
1 5 10 15

cgg tta cac tgg tgt ccc ccc acg gag ccc aat ggt gag att gtg gag 96
Arg Leu His Trp Cys Pro Pro Thr Glu Pro Asn Gly Glu Ile Val Glu
20 25 30

tat cta att ctc tac agc aac aac cac acc cag ccc gaa cac cag tgg	144
Tyr Leu Ile Leu Tyr Ser Asn Asn His Thr Gln Pro Glu His Gln Trp	
35 40 45	
aca ctg ctc acc aca gag gga aac atc ttc agt gca gag gtc cat ggc	192
Thr Leu Leu Thr Thr Glu Gly Asn Ile Phe Ser Ala Glu Val His Gly	
50 55 60	
cta gag agt gac act cgg tat ttc ttc aag atg gga gcc cgc aca gag	240
Leu Glu Ser Asp Thr Arg Tyr Phe Phe Lys Met Gly Ala Arg Thr Glu	
65 70 75 80	
gtg ggg cct ggg	252
Val Gly Pro Gly	

<210> 24
 <211> 84
 <212> PRT
 <213> Mus musculus

<400> 24
Thr Pro Pro Ser Asp Leu Arg Leu Ser Pro Leu Thr Pro Ser Thr Val
1 5 10 15
Arg Leu His Trp Cys Pro Pro Thr Glu Pro Asn Gly Glu Ile Val Glu
20 25 30
Tyr Leu Ile Leu Tyr Ser Asn Asn His Thr Gln Pro Glu His Gln Trp
35 40 45
Thr Leu Leu Thr Thr Glu Gly Asn Ile Phe Ser Ala Glu Val His Gly
50 55 60
Leu Glu Ser Asp Thr Arg Tyr Phe Phe Lys Met Gly Ala Arg Thr Glu
65 70 75 80
Val Gly Pro Gly

<210> 25
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> oligonucleotide primer

<400> 25
 aagcaggtga gcctctctgg cccact

<210> 26
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 26
cttgagacag atccacagct ccagac

26

<210> 27
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 27
atccgggaag ggcttccctg tgggagcttc

30

<210> 28
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 28
gcgctgggga catcggtccag tgtatg

26

<210> 29
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 29
gttccaggtc ccgaacctgc agctctgt

28

<210> 30
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 30
ccactcccct tgccttttgg tagtgaa

27

<210> 31
<211> 21
<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide primer

<400> 31

gtgctgacct tctgcctgct g

21

<210> 32

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide primer

<400> 32

ctctgtctgc tacactgggc aa

22

<210> 33

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide primer

<400> 33

tggacgcca ggagttgg

18

<210> 34

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide primer

<400> 34

caaatccac agaacagga

19

<210> 35

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide primer

<400> 35

acgggcatca tcgtggg

17

<210> 36

<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 36
gaggaggaca atccggaag ggctt 25

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 37
tcaagcagtt gacacttgac tgtg 24

<210> 38
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 38
taatctcaca gtgatgagag gaga 24

<210> 39
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 39
ctgtgtctca atcttgaaca aacaca 26

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 40
ggaagagaga cagtaaacad ttctg 25

<210> 41
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 41
ctcccttctt tcctgatcgt tttc

24

<210> 42
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide primer

<400> 42
cggctctcaa gcactgcaga ttttg

25

<210> 43
<211> 500
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (276)...(338)

<400> 43
aggctggtgg cgcgcgggcg cgtgtccct gtggtgcagg gtggccacac tggcggggcg 60
ccccgcgctg ggccgctagc ccaagatggc gatggagggg cgggcgagct ggccgcggcc 120
ccggcccccg cgcgcggccc cgctcgcccc cggccccgga ggccgcgccc ccgcccgcgg 180
cgccgcgcct cccggagcca ctgacgcccc gcgcgccttc ccccggcggc ggcccaggcg 240
cccggacgcg gcggcagcgg cccgagcccc gccct atg gcg cgg gcg gac acg 293
Met Ala Arg Ala Asp Thr
1 5

ggc cgc ggg ctc ctg gtg ctg acc ttc tgc ctg ctg tcc gcg cgc 338
Gly Arg Gly Leu' Leu Val Leu Thr Phe Cys Leu Leu Ser Ala Arg
10 15 20

ggtaagggcc cgggtggccg cagtgcgag tgggcgtccc cggcgccccg gatgcttgcg 398
cgccgggggc tgtggggact tgccccagg ggggtgtgtg ccttgctgtg cacagcctgg 458
cacggtgcgt gtccccctgc gcgtggccct tgtgcatgtg ag 500

<210> 44
<211> 21
<212> PRT
<213> Mus musculus

<400> 44

Met Ala Arg Ala Asp Thr Gly Arg Gly Leu Leu Val Leu Thr Phe Cys
1 5 10 15
Leu Leu Ser Ala Arg
20

<210> 45

<211> 3756

<212> DNA

<213> Mus musculus

<400> 45

atggcgcgagg cggacacggg ccgcgggctc ctggtgctga ccttctgcct gctgtccgcg 60
cgcggggagc tgccattgcc ccaggagaca actgtcaagc tgagctgtga tgagggaccc 120
ctgcaagtga tcctggggccc tgagcaggct gtggtgctgg actgcacttt gggggctaca 180
gctgctgggc ctccgaccag ggtgacatgg agcaaggatg gagacactgt actagagcat 240
gagaacctgc acctgctacc caatggctcc ctgtggctgt cctcaccctc agagcaagaa 300
gacagcgatg atgaggaagc tcttaggatc tgggaaggta ctgagggcag ctattcctgt 360
ctggcccaca gcccgtctagg agtgggtggc agccagggtg ctgtgggtcaa gcttgccaca 420
ctcgaagact tctctctgca ccccgagtc cagattgtgg aggagaacgg gacagcacgc 480
tttgaatgcc acaccaaggg ccttccagcc cccatcatta ctgggaaaaa ggaccagggtg 540
accgtgcttg aggagccccg gctcatcact cttcccaagt ggctcctcca gatcctagat 600
gtccaggaca gtgatgcagg ctctaccgc tgcgtggcca ccaattcagc ccgccaacga 660
ttcagccagg aggcctcgct cactgtggcc ctccagagggt ctttggaggc taccaggggg 720
caggatgtgg tcattgtggc agccccagag aacaccacgg tagtgtctgg acagaatgta 780
gtgatggagt gcgtggcctc tgctgacccc accccttttg tgcctgggt ccgacaggat 840
ggaaagccta tctccacgga tgcctcgtt ctgggcccga ccaatctact catcgccagc 900
gcgcagcctc ggcaactctg agtctatgtc tgccgagcca acaagccct cagcggtgac 960
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